Seven Sports Across 93 Miles, One Complex Medical Plan

By Steve Tafoya, MLS, MBA, CCP

This past May, I participated in the Ski to Sea event with my family. Ski to Sea is a multi-sport team relay race that starts in the snow at Mount Baker in Washington State and finishes approximately 90 miles later in the water at Bellingham Bay. Between those two points, racers move through mountain terrain, roadways, rivers, bike routes, and open water. The medical plan for such a dynamic event must keep pace with the racers, adapt to the environment, and support patients who may be athletes, volunteers, spectators, or staff.

Most special event medical plans start with familiar questions: how many people will be attending and how many ambulances or medical providers are needed? Those questions matter, but for an event like Ski to Sea, it's only the beginning.

This is where event medicine becomes more than standby coverage. EMS is an important part of the system, especially when a patient needs transport or higher-level care, but EMS is not the whole system. At Ski to Sea, the medical operation depends on a wide range of healthcare volunteers, including physicians, nurses, EMTs, paramedics, medical assistants, athletic trainers, and other support personnel. Whatcom Fire District-EMS handles the transport, along with Airlift Northwest. Medical tents are placed at key points along the course. PeaceHealth St. Joseph Medical Center supports the finish area with an additional tent. County Search and Rescue, along with the Sheriff's Department's Search and Rescue, patrols the water portions of the race with boats and personal watercraft.
The work is not simply focused on response. It is planning, prevention, field care, access, communication, rescue, transport, and post-event improvement.

The race includes seven legs: cross-country skiing, downhill skiing or snowboarding, running, road biking, canoeing, cyclocross biking, and sea kayaking. Depending on course changes and weather, the event is commonly described as roughly 90 to 93 miles in length.
Each leg brings a different patient care problem. The ski legs involve snow, cold exposure, falls, and changing mountain conditions. The run adds downhill pavement, cramps, blisters, and dehydration. The road bike leg brings traffic control, crashes, and mechanical failures. The canoe leg moves the race onto the Nooksack River, where cold-water exposure and difficult river conditions become real concerns. Cyclocross adds in mixed terrain where bike crashes, mechanical problems, and falls can lead to different types of trauma. Finally, the kayak leg moves racers into the ocean, where wind, waves, and cold-water exposure can quickly change the risk.

From a medical planning standpoint, Ski to Sea is not one event. It is seven different risk environments connected by transition points. Those transition points are more than handoff locations for racers. They are natural checkpoints where support staff can identify racer/patient needs and move people safely through the course.

Dr. Gittle Goodman, a Bellingham, Washington Internist, has served as the volunteer Medical Director for Ski to Sea for eight years. She describes the event as unusual because of its distance and varied terrain. “The area it covers is actually just one county,” Goodman said, “but what’s interesting is that this single county spans the entire length of the race, up to 93 miles.”

Various geographic factors help the experts define the medical plan. At a fixed single-location event, a patient may be treated at a medical tent or an ambulance, but at Ski to Sea, the medical event team must think beyond the complaint or incident. They must know the patient's exact location, who can safely reach them, how long access will take, what level of care is needed, and how the patient will ultimately be moved out.

Dr. Goodman said planning begins months before race day. The event is held annually, over Memorial Day weekend, but the medical planning starts near the beginning of each year. Supplies are reviewed, medical tents are standardized, agency roles are discussed, and lessons from prior years are used to improve the upcoming Ski to Sea race. That preparation reflects one of the bases of event medicine: the best patient care often happens before the patient ever appears.

Quality event medicine planning and preparation continues after the race/event. An after-action review should rely on lessons learned from the previous Ski to Sea race to benefit next year’s event. If a section of the race leads to repeated falls or shows a pattern of crashes, the solution needs to be flexible. In those cases, considerations should include changing routes, improving signage, or redesigning how people move through that part of the course.

Dr. Goodman said the cyclocross leg often produces a steady stream of wound care. Her practical summary of the medical tent was simple: “Coband is my friend.” That line says a lot about the real work of event medicine for Ski to Sea. The public may picture major trauma, resuscitations, or helicopter evacuations. Those events can happen, but the reality is that much of the race day work involves wound irrigation, bandaging, and minor medication needs, determining who can safely continue and who needs a higher level of care.

Jorge Raga, MA, a medical assistant instructor and former EMT who has volunteered with Ski to Sea for four years, said the event also shows why the supply plan has to match the race, not just what would normally be carried on an ambulance. The medical team brings more than standard EMS supplies. Sunscreen, allergy medications, electrolyte products, and other race-day essentials can become just as important. With a course that moves from snow to road to river to open water, supplies that make sense at one location may not be useful at another. Effective event medicine depends on understanding those differences before the race begins.

My portion in this year's Ski to Sea event was the kayak leg. I paddled across Bellingham Bay and experienced the event from the water. As the event got underway, the wind and whitecaps were constant. I paddled with a group of 30-40 kayakers. Five kayaks capsized after rounding a buoy as we were heading back toward shore. Search and Rescue resources were already on the water, prepared for this possible occurrence. No one was injured, and Search and Rescue only had to help a few who couldn't self-rescue because of the waves. The system worked because the hazard had been anticipated before the first kayak launched. Event medicine is not only the response after someone gets hurt, but also identifying predictable failure points before the event starts.

Ski to Sea shows us that medical care is only one part of the role. Event medicine also includes planning, supply review, volunteer coordination, interagency communication, safety review, and post-event improvement.

Across 90-plus miles of snow, roadway, river, trail, and open water, Ski to Sea shows why event medicine planning must be fluid to be effective, with a plan always built around the areas where risk is most likely to appear.

https://skitosea.com/